



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,075	09/30/2003	Takeshi Konno	TOW-045	8343
959	7590	10/03/2005	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			NGUYEN, NAM V	
			ART UNIT	PAPER NUMBER
			2635	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/677,075

Applicant(s)

KONNO, TAKESHI

Examiner

Nam V. Nguyen

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/30/04; 3/15/04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2635

### **DETAILED ACTION**

The application of Konno for an "electronic key system for vehicle" filed September 30, 2003 has been examined.

This application claims foreign priority based on the application 2002-284742 and 2002-284743 filed September 30, 2002 in Japan. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a) – (d), which papers have been placed of record in the file.

A preliminary amendment to the claims 1-6 has been entered and made of record.

Claims 1-6 are pending.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Yoshida et al. (US# 5,124,565).

Referring to claim 1, Yoshida et al. disclose an electric power supply control device for vehicle as recited in claim 1. See Figures 1 to 3 and respective portions of the apparatus and method.

Art Unit: 2635

Yoshida et al. disclose an electronic key system for a vehicle (see Figures 1 to 4), comprising a control apparatus (16) (i.e. a control unit) mounted on the vehicle (see Figures 3 to 4) and an electronic key (18) (i.e. a code transmitter) for transmitting a response signal (i.e. a response code signal) in response to receiving of a request signal transmitted from said control apparatus (16) through a transmitting antenna (17) (column 5 lines 45 to 62; column 9 lines 13 to 29; see Figures 5 and 11 to 12),

wherein said transmitting antenna (17) is installed in proximity of said instrument panel (1) (i.e. an operation switch panel) to said vehicle (column 4 lines 1 to 29; column 7 lines 24 to 33; see Figures 1-4

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (US# 5,124,565) as applied to claim 1 above, and in view of Yamamoto (US# 6,078,293).

Referring to claims 2-3, Yoshida et al. disclose an electronic key system for a vehicle according to claim 1, however, Yoshida et al. did not explicitly disclose wherein said instrument

Art Unit: 2635

panel has one or more instruments and a board for securing said instruments thereto, and wherein said transmitting antenna is provided on said board.

In the same field of endeavor of remote keyless entry system, Yamamoto teaches that wherein said instrument panel (1) (i.e. column switch) has one or more instruments (1D to 1E) (i.e. levers) and a board (1C) (i.e. a main body) for securing said instruments (1D to 1E) thereto, and wherein said transmitting antenna (1C) is provided on said board (1C) (column 2 lines 26 to 65; column 3 lines 9 to 44; see Figures 1 to 3) in order to obtain the best transmission strategy for transmitting and receiving signals from a remote keyless entry apparatus.

One of ordinary skilled in the art recognizes the need to put an antenna in a column switch within the switch main body for a keyless entry system of Yamamoto in an operation switch panel of a motorcycle of Yoshida et al. because Yoshida et al. suggest it is desired to place an antenna in an appropriate position of a vehicle body to transmit and to receive signal between a control unit and a code transmitter (column 4 lines 17 to 29) and Yamamoto teaches that an antenna of a transceiver unit is mounted on a printed circuit board of a switch main body to receive signals from a an keyless entry apparatus (column 2 lines 44 to 65; column 3 lines 9 to 18) in order to improve the signal receiving sensitivity. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to put an antenna in a column switch within the switch main body for a keyless entry system of Yamamoto in an operation switch panel of a motorcycle of Yoshida et al. with the motivation for doing so would have been to provide a reliable transmitting and receiving signals in a remote keyless entry system.

Art Unit: 2635

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (US# 5,124,565) as applied to claim 1 above, and in view of Caldwell (US# 4,132,994).

Referring to claims 4-6, Yoshida et al. disclose an electronic key system for a vehicle according to claim 1, however, Yoshida et al. did not explicitly disclose further comprising a shade mounted around said instrument panel, and wherein said transmitting antenna is installed on said shade; characterized in that said shade is made of a resin, and characterized in that said transmitting antenna is installed on an inner wall surface of said shade.

In the same field of endeavor of radio antenna for motorcycle system, Caldwell teaches that a shade (18) (i.e. a transparent windshield) mounted around said instrument panel (column 3 line 64 to column 3 line 5), and wherein said transmitting antenna (44) (i.e. an elongated antenna element) is installed on said shade (18) (column 3 line 52 to column 4 line 20); characterized in that said shade is made of a resin (i.e. non-conducting or glass windshield), and characterized in that said transmitting antenna (44) is installed on an inner wall surface of said shade (18) (column 2 line 64 to column 4 line 35; see Figures 1 to 5) in order to avoid damage.

One of ordinary skilled in the art recognizes the need to install an antenna on a windshield of Caldwell in a remote control unit of a motorcycle of Yoshida et al. because Yoshida et al. suggest it is desired to place an antenna in an appropriate position of a vehicle body to transmit and to receive signal between a control unit and a code transmitter (column 4 lines 17 to 29) and Caldwell teaches that an antenna is mounted on a transparent windshield of a motorcycle (column 2 line 64 to column 4 line 35) in order to avoid damage to the antenna. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the

Art Unit: 2635

invention was made to install an antenna on a windshield of Caldwell in a remote control unit of a motorcycle of Yoshida et al. with the motivation for doing so would have been to provide a reliable transmitting and receiving signals in a remote keyless entry system.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takeuchi et al. (US# 5,134,392) disclose a keyless entry system for locking and unlocking a vehicular lock device by a pocket portable radio signal transmitter and antenna arrangement therefor.

Hirano (US# 4,897,644) discloses a radio-wave transmission system of keyless entry system for automotive vehicle devices.

Boschini (US# 5,499,022) discloses a remote control system for locking and unlocking doors and other openings in a passenger space, in a particular in a motor vehicle.

Fischer et al. (US# 5,552,641) disclose a remote-control access control device and method for operating the same.

Glehr (US# 5,723,911) discloses a keyless access control device.

Yamasaki (US# 6,075,454) discloses a keyless entry device.

Art Unit: 2635

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 571-272-3061. The examiner can normally be reached on Mon-Fri, 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 571-272-3068. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nam Nguyen  
September 23, 2005



MICHAEL HORABIK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

